

[54] **HYDROGELS AND ARTICLES MADE THEREFROM**

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**Related U.S. Application Data**

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[52] **U.S. Cl.**..... **351/160**; 128/130; 264/1; 260/2.5 R; 260/29.6 R; 424/81; 526/230; 526/320

[51] **Int. Cl.<sup>2</sup>**..... **C08F 220/14**; G02C 7/04

[58] **Field of Search**..... 351/160; 264/1; 424/81; 128/130; 260/86.1 E, 2.5 R, 80.72, 29.6 R

[56] **References Cited**

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[57] **ABSTRACT**

This invention relates to copolymers and hydrogels formed by copolymerization of a hydrophilic monomer from the group of dihydroxyalkyl acrylates and methacrylates and a substantially water insoluble monomer from the group of alkyl acrylates and methacrylates. The preferred copolymer of the invention is formed from methyl methacrylate and glyceryl methacrylate (2,3-dihydroxypropyl methacrylate). The hydrogels of the invention have unique physical and physiological properties which are particularly useful for the formation of contact lenses, particularly contact lenses having a relatively thin cross-section, though they may also be used for other purposes such as drug and pesticides delivery devices, dialysis, ultrafiltration and reverse osmosis membranes, implants in surgery and dentistry and the like.

**32 Claims, No Drawings**